

Amendments to the Claims:

This listing will replace all prior versions and listings of claims in the application.

Claim1 (currently amended) A spectral imaging device with a narrow band spectrally tunable light source for obtaining multi-spectral images of a target, said device comprising:

- A) a tunable optical parametric oscillator for producing short pulses of light at a plurality of selected narrow band wavelengths within a broad spectral range,
- B) a short pulse laser driving said optical parametric oscillator,
- C) one or more optical components for conveying or directing said short pulses of light to said target,
- D) a camera comprising a many pixel array detector, said camera being positioned to obtain multi-spectral images of said target from said short pulses of light reflected from or transmitted through said target.

Claim 2 (original) The device as in claim 1 wherein said one or more optical components for conveying or directing said short pulses of light to said target is one or more optical fibers.

Claim 3 (original) The device as in claim 1 wherein said one or more optical components for conveying or directing said short pulses of light to said target comprises refractive or reflective optical elements.

Claim 4 (original) The device as in claim 1 wherein said camera is a gated camera synchronized with said optical parametric oscillator to maximize signal to noise ratio.

Claim 5 (original) The device as in claim 1 wherein the optical parametric oscillator comprises a type I bulk non-linear crystal.

Claim 6 (original) The device as in claim 1 wherein the optical parametric oscillator

comprises a type II bulk non-linear crystal.

Claim 7 (original) The device as in claim 1 and further comprising additional non-linear optical devices for extending spectral ranges of said device.

Claim 8 (original) The device as in claim 1 wherein said camera is positioned to monitor reflections from said target.

Claim 9 (original) The device as in claim 1 wherein said camera is positioned to monitor transmissions through said target.

Claim 10 (cancelled)

Claim 11 (original) The device as in claim 1 wherein said camera is positioned to monitor dichroism of said target.

Claim 12 (original) The device as in claim 1 wherein said target is a pharmaceutical product.

Claim 13 (original) The device as in claim 1 wherein said target is an array of samples containing identical or different materials.

Claim 14 (original) The device as in claim 1 wherein said OPO incorporates a periodically polled material, which can be operated in a pulsed or continuous mode.
